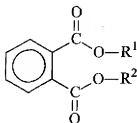


## REMARKS

Responsive to the Office action mailed July 29, 2009, applicant requests consideration of the following remarks and reconsideration of the rejections set forth in said office action.

The present invention is directed towards a step wise process for the treatment of a metal hydrotreating catalyst in oxide form, in which the first step consists of bringing it into contacting with a metal hydrotreating catalyst, in the absence of a sulphidation agent, at least one compound chosen from orthophthalic acid, phthalic anhydride or the ester of general formula (I):



in which the symbols  $R^1$  and  $R^2$ , which are identical or different, each represent an alkyl (linear or branched), cycloalkyl, aryl, alkylaryl or arylalkyl radical, it being possible for this radical to comprise from 1 to 18 carbon atoms and optionally one or more heteroatoms. The contacting operation can be carried out by spraying the compound, in the liquid state, over a charge of the catalyst to be treated by any appropriate device, for example a double-cone mixer or a rotary mixer. The compound can be sprayed after it has been dissolved in a solvent with a boiling point of less than 200°C, preferably of less than 180°C, so that the solvent can be evaporated by heating. The solvent can be an organic solvent, such as aliphatic, aromatic or alicyclic hydrocarbons, or alcohols, ethers or ketones. The compound can also be sprayed after it has been emulsified in water by any appropriate dispersing or emulsifying agent. Thereafter, a sulphiding agent such as an organic polysulphide, preferably dimethyl

disulphide is used to sulphide the catalyst. It was discovered that this sequential treatment results in a hydrotreating catalyst exhibiting improved activity.

Claims 1-5 and 7-15 were rejected under 35 USC 102(b) as unpatentable over Brun et al. (US 6,325,930). Applicants submit that Brun et al. '920 fails to render obvious the current invention as presently claimed.

Brun et al. '925 discloses a process for the sulphurization of catalyst for the hydrotreating of hydrocarbon feedstocks in which a small amount of at least one orthophthalic acid ester **is added to the sulphurization agent** used to sulphurize the catalyst. Brun et al. '925 abstract, emphasis added. Thus, Brun et al. '925 fails to anticipate the present invention wherein a compound selected from an orthophthalic acid, phthalic anhydride or the ester of the disclosed formula is used to treat the catalyst, in the absence of a sulphidation agent. In the present invention, the catalyst is first treated with the orthophthalic acid, phthalic anhydride or the ester of the disclosed formula and thereafter the so treated catalyst is sulpherized with a sulphidation agent. Applicants submit that Brun et al. '925 fails to disclose or render obvious this sequential treatment method.

Prior to publication of Brun et al. '925, sulphurisation of catalysts was conducted by applying hydrogen sulphide on the catalysts. This technique is however difficult to use on an industrial scale (see for example Brun et al. '925 at column 1, lines 45-53). Furthermore, Brun et al. '925 teaches that it is possible to first treat the catalysts with a spiked feedstock comprising a sulphurising agent (for example DMDS), and then treating the catalysts with hydrogen (see Brun et al. '925 at column 1, line 66 to column 2, line 26). Non-spiked feedstock techniques are taught to lead to less active sulphurised catalysts (see Brun et al. '925 at column 2, line 14-26). From this last teaching, one skilled in the art is taught away from first treating the catalysts with a compound containing no sulphur as claimed in the present invention.

Brun et al. '925 is directed towards providing more efficient hydrotreating catalysts, wherein the catalysts are pre-treated outside the industrial plant with a sulphurising agent (spiking agent). Such pre-treated catalysts can be easily transported, handled, and finally easily post-treated in the industrial plant.

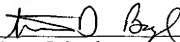
Brun et al. '925 provides for a pre-treatment of the catalysts with a mixture of a sulphurising agent (a spiking agent – non spiking agents are not satisfactory) together with an ortho-phthalic acid ester. These

pre-treated catalysts are easy to handle, transported and finally treated with hydrogen in the industrial plant. Such catalysts that are pre-treated by the mixture (spiking agent and ortho-phthalic acid ester) show improved hydrodesulphurisation properties. Contrary to the teaching of Brun et al. '925, the present invention provides for a process leading to catalysts with improved hydrodesulphurisation properties, as compared to those described in Brun et al. '925. The process of the present invention consists of first treating the catalysts with a non spiking agent (or non spiked feedstock) for example outside the industrial plant, leading to non-sulphurised pre-treated catalysts, that can be easily transported and handled, and only afterwards, post-treated in the industrial plant with a sulphurising agent and hydrogen. Such a process is leading to catalysts with improved hydrodesulphurisation properties, of the level of the catalysts of Brun et al. '925 as shown by example 9 of the present application where an RVA of 137 was provided. This process of the present invention is an improvement over the prior art since the pre-treatment with a non-sulphur containing compound may be first conducted in locations, which are not equipped with the handling of sulphur-containing compounds (which are odorant and hazardous compounds), the final treatment being conducted on the industrial facilities acquainted with the handling of such sulphur-containing compounds.

In view of the foregoing remarks, applicant respectfully submits that claims 1-15 of the present application are in condition for allowance and prompt favorable action is solicited.

Respectfully submitted,

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